

Work Order ID 138487

138487

Page 1

Wednesday, October 28, 2015 12:57:18 PM

Item ID: D206-667-207BL

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Aft Crosstube - Mid Height 206L / L1 / L3 / L4, Blue

Start Date: 10/28/2015 Start Qty: 1.00 *1*

Cust Item ID:

Required Date: 10/28/2015 Req'd Qty: 1.00 *1*

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D206-667-247	A (DEO)
IIN-D206-667	D

MLJ 16-01-05

100

Document Control

0.00

DAS

100

6

DC

DOCUMENT CONTROL

9-89

Memo

0.00

DAS
28
9-89

JAN 07 2016

Doc.Control -USB or Paperwork

Photocopy bluefile and create labels as per PPP.D206-667-207 chg 002

110

0.00

110

BENDING MACHINE - CROSSTUBES

CNC Bend 2

Memo

0.02

BL 15/12/14

CNC Alpha 160 Bender

Bend tube as per Dwg D206-667-247 using CNC bender program D206-667-207

D206-667-207BL / 138487

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Item ID: D206-667-207BL

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N900040100Setup Start ***NS1***

Revision ID:

Item Name: Aft Crosstube - Mid Height 206L / L1 / L3 / L4, Blue

Stop ***NS2***Start Date: 10/28/2015 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 10/28/2015 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC15- Crosstube Dimensional Check	0.00				1	6		
120 QC	Memo	0.00							
Quality Control									

15/12/14
DAS
49
9-89

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Item ID: D206-667-207BL

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N900040100Setup Start ***NS1***

Revision ID:

Item Name: Aft Crosstube - Mid Height 206L / L1 / L3 / L4, Blue

Stop ***NS2***Start Date: 10/28/2015 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 10/28/2015 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***
Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

130

0.00

130

Crosstubes

0.02

Crosstubes

Memo

***** ENSURE PROPER JIG POSITIONING BEFORE DRILLING*****
VERIFIED BY: [Signature] *****

1-Drill pilot holes in tube using drill Jig DT8583 & DT8584 as per Dwg D206-667-247. Drill all (3) top holes. Holes facing inboard. Drill and Ream all holes in tube to finish size using drill Jig DT8583 & DT8584 as per Dwg D206-667-247

***** ENSURE PROPER JIG POSITIONING BEFORE DRILLING*****
VERIFIED BY: [Signature] *****

2- Drill fwd fivet holes using drill Jig DT8787 fwd as per Dwg D206-667-247.
Note: FWD side has 3X top holes facing inboard.

3- C'sink holes as per dwg D206-667-247. Allow rivet to sit below surface to compensate for paint.

4- Flip tube and switch drilling Jigs from right to left, left to right. Locate Jigs off existing holes using "T" pins. Drill ONLY 2 top holes ONLY plug most bottom hole to prevent accidental drilling. Drill holes and ream using drill Jig DT8583 & DT8584 as per Dwg D206-667-247. Drill only the top (2) holes. Drill & ream the top (2) holes to finish size using drill Jig DT8583 & DT8584 as per Dwg D206-667-247

***** ENSURE PROPER JIG POSITIONING BEFORE DRILLING*****
VERIFIED BY: [Signature] *****

5-Drill aft rivet holes using drill Jig DT8787 aft as per Dwg D206-667-247.

BL15/12/15

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Item Name: Aft Crosstube - Mid Height 206L / L1 / L3 / L4, Blue

Start Date: 10/28/2015 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 10/28/2015 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Drill only the top (2) holes.

***** ENSURE PROPER JIG POSITIONING BEFORE DRILLING *****
VERIFIED BY: *****

6- C'sink holes as per dwg D206-667-247. Allow rivet to sit below surface to compensate for paint.

7- Scribe tube to identify on the inner chamfer in the cuff D# and B#

8-*** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE***Debur
& Inspect for surface damage. Repair damage within limits as per Dwg D206-667-247

140

0.00

140

HandFXtube

Hand Finishing Crosstubes

Memo 0.00

IMMEDIATELY AFTER GRINDING

1- PRESSURE WASH X-TUBE INSIDE AND OUT

2- ALODINE AND ACID ETCH X-TUBE INSIDE AND OUT AS PER QSI005.

BC15/12/16BC15/12/16

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N900040100

Setup Start

NS1

Revision ID:

Item Name: Aft Crosstube - Mid Height 206L / L1 / L3 / L4, Blue

Stop

NS2

Start Date: 10/28/2015 Start Qty: 1.00

1

Cust Item ID:

Required Date: 10/28/2015 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

150

QC7-Inspect Chemical Conversion Coat

0.00

150

QC

Memo

0.00

Quality Control

DAS

9

9-89

DEC 16 2015

160

QC5- Inspect part completeness to step on W/O

0.00

160

QC

Memo

0.00

Quality Control

DAS

49

9-89

15/10/16

170

Outsource process - NDT per QSI038 4.1

0.00

170

Outsource2

Memo

2.00

Outsource process - NDT

*** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE***

Liquid Penetrant Inspection as per QSI 038Or

Issue P/O: 30254

LPI as per ASTM 1417

Level 2 Attach copy of NDT results to work order

DEC 17 2015

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Item ID: D206-667-207BL Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Aft Crosstube - Mid Height 206L / L1 / L3 / L4, Blue
Start Date: 10/28/2015 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 10/28/2015 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	Packaging	0.00							
180									
Packaging	Memo	0.00							
Packaging	*** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE***								
	Ensure copy of NDT results attached to work order.								
190	QC5- Inspect part completeness to step on W/O	0.00							
190									
QC	Memo	0.00							
Quality Control	*** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE***								
	Ensure results are as per Dwg D206-667-247								

1x SP15-12-18

DEC 21 2015

DAS
9
9-89

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N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Aft Crosstube - Mid Height 206L / L1 / L3 / L4, Blue

Start Date: 10/28/2015 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 10/28/2015 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***
Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
200	SprayPaint Blue	0.00				<u>1</u>			DAS 41 9-89 15-12-21
200	SprayPaint	0.01							
	Memo								
	*** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE***								
	1-Prime inside and outside crosstube as per QSI 005 4.2								
	2-Paint outside crosstube as per QSI 005 4.2								
	PRIME: 133242								
	Start Time: _____								
	Finish Time: _____								
	PAINT: 132641								
	Start Time: _____								
	Finish Time: _____								
	clear 133154								
210	QC14- Inspect Spray Paint	0.00				<u>1</u>			D: 3 9-89
210	QC	0.00							
	Quality Control								JAN 05 2016
	Memo								
	Wrap in plastic bag to protect from scratches								

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Item ID: D206-667-207BL Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Aft Crosstube - Mid Height 206L / L1 / L3 / L4, Blue
Start Date: 10/28/2015 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 10/28/2015 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
220		0.00							
220	Crosstubes					1			DAS 41 9-89
Crosstubes	Memo	0.01							15-12-22
Crosstubes	1-Install nut plates as per Dwg D206-667-247.								
230		0.00							
230	Skidtubes					1			DAS 41 9-89
Crosstubes	Memo	0.03							15-12-22
Crosstubes	1-Abrade mating surfaces of support and crosstube with 400 grit sandpaper, clean the area with 4105S wash 'n' wipe								
	2-Install supports with Proseal 890 per DSI9565 and QSI 015								
	A/R Proseal 890 Batch: <u>133532</u>								
	3- Torque bolts as per dwg								
240		0.00							
240	QC5- Inspect part completeness to step on W/O	0.00				1			DAS 38 9-89
QC	Memo	0.00							
Quality Control									

JAN 05 2016

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N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Aft Crosstube - Mid Height 206L / L1 / L3 / L4, Blue

Start Date: 10/28/2015 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 10/28/2015 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
250	Pick Kit	0.00							
250							DAS 6	BAS 27	
Packaging	Memo	0.00					9-89	9-89	JAN 05 2016
Packaging									
260	QC4- 100% Inspect kits for completeness	0.00							
260							DAS 28		
QC	Memo	0.00					9-89		JAN 07 2016
Quality Control									
270		0.00							
270							DAS 28	BAS 27	
Packaging	Packaging	0.00					9-89	9-89	JAN 07 2016
Packaging	Memo								
Packaging	Identify and pack for shipping as per PPP D206-667-207								
	Location: <u>035</u>								
	PPP Rev: _____								

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Item ID: D206-667-207BL

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Revision ID:

Stop ***NS2***

Item Name: Aft Crosstube - Mid Height 206L / L1 / L3 / L4, Blue

Start Date: 10/28/2015 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 10/28/2015 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

280

QC21 - Final Inspection - Work Order Release

0.00

280

QC

Memo

0.00

Quality Control

MCJ

JAN 08 2016

MCJ JAN 07 2016

Picklist Print

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Page 1

Work Order ID: 138487

138487

Parent Item: D206-667-207BL

***D206-667-207BL ***

Parent Item Name: Aft Crosstube - Mid Height 206L / L1 / L3 / L4, Blue

Start Date: 10/28/2015

Required Date: 10/28/2015

Start Qty: 1.00

Required Qty: 1.00

Comments: RevA 11.01.13 New Issue EC verified by:DD
11.08.08 PER ECN 11-615 DD VERF:EC

IPP REV:B

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D206-667-247TRN		Manufactured	No			110	Each	1.0000	1	1			
D206-667-247TRN									**	1		RC 15/12/14	
Crosstube Assembly, Mid Aft													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				LG014				1					
				132352				1					
D2873-043		Manufactured	No			220	Each	72.0000	2	2			
D2873-043									**			DAS 41 9-89 15-12-12	
Nut Plate Assembly													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				LG050				72					
				135398				32					
				137626				40					
D2873-045		Manufactured	No			220	Each	62.0000	2	2			
D2873-045									**			DAS 41 9-89 15-12-12	
Nut Plate Assembly													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				LG050				62					
				134433				1					
				136187				51					
				137696				10					

Picklist Print

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Work Order ID: 138487

138487

Parent Item: D206-667-207BL

***D206-667-207BI ***

Parent Item Name: Aft Crosstube - Mid Height 206L / L1 / L3 / L4, Blue

Start Date: 10/28/2015

Required Date: 10/28/2015

Start Qty: 1.00

Required Qty: 1.00

MS20601-AD4W10

Purchased

No

220

Each

327.0000

14

14

DAS

41

9-89

15-12-12

MS20601-AD4W10

RIVET

**

Location

Loc Qty

Loc Code

LG050

277

M128594

4

M128708

173

M132522

50

M133091

50

LG056

50

M132674

50

D2892-1

Manufactured

No

230

Each

10.0000

2

2

DAS

41

9-89

15-12-22

D2892-1

Support

**

Location

Loc Qty

Loc Code

LG050

4

132704

4

LG052

6

136226

6

D3595-063-450

Manufactured

No

230

Each

52.0000

4

4

DAS

41

9-89

15-12-22

D3595-063-450

Rubber Cushion 0.63" wide x 4.50" Long

**

Location

Loc Qty

Loc Code

FG

22

129907

10

131013

6

88422

6

LG052

30

136574

30

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Shop Packet Print

Page 2

Picklist Print

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Work Order ID: 138487

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Parent Item: D206-667-207BL

***D206-667-207BL ***

Parent Item Name: Aft Crosstube - Mid Height 206L / L1 / L3 / L4, Blue

Start Date: 10/28/2015

Required Date: 10/28/2015

Start Qty: 1.00

Required Qty: 1.00

MS21920-22

Purchased No

230 Each

10.0000

4

4

DAS

41

9-89

15-12-22

MS21920-22

Clamp

**

4

Location

Loc Qty

Loc Code

LG050

10

M132854

10

AN5-10A

Purchased No

250

Each

140.0000

10

10

AN5-10A

BOLT

**

DAS

6

9-89

DAS

27

9-89

Location

Loc Qty

Loc Code

GA

51

122800

51

ST299A

50

m133323

50

ST338

39

m133077

39

AN5-32A

Purchased No

250

Each

219.0000

4

4

AN5-32A

Bolt

**

DAS

6

9-89

DAS

7

9-89

Location

Loc Qty

Loc Code

ST299A

180

m132857

30

m133323

150

ST336

32

m132536

32

ST337

7

m131139

7

JAN 05 2016

Picklist Print

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Work Order ID: 138487

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Parent Item: D206-667-207BL

*D206-667-207BL *

Parent Item Name: Aft Crosstube - Mid Height 206L / L1 / L3 / L4, Blue

Start Date: 10/28/2015

Required Date: 10/28/2015

Start Qty: 1.00

Required Qty: 1.00

AN5-34A

Purchased

No

250

Each

49.0000

4

4

AN5-34A

Bolt

**

DAS
6
9-89

DAS
7

Location

Loc Qty

Loc Code

ST299A

25

m132857

25

ST336

24

m128634

2

m133363

22

DAS
28
9-89

4

MS21042L5

Purchased

No

250

Each

485.0000

4

4

MS21042L5

Nut

**

DAS
6
9-89

DAS
7

Location

Loc Qty

Loc Code

GA

146

m127813

146

ST305

339

m127813

19

m131340

21

m132123

8

m132677

91

m133363

200

DAS
28
9-89

4

JAN 05 2016

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***D206-667-207BL ***

Parent Item Name: Aft Crosstube - Mid Height 206L / L1 / L3 / L4, Blue

Start Date: 10/28/2015

Required Date: 10/28/2015

Start Qty: 1.00

Required Qty: 1.00

NAS1149D0563J

Purchased

No

250

Each

1,227.000

18

18

NAS1149D0563J

Washer

DAS

6

DAS

6

9-89

JAN 05 2016

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

53

m125807

53

ST260a

928

m130799

63

m132035

55

m132256

10

m133134

300

m133363

500

ST269

227

m128257

156

m132677

71

ST271

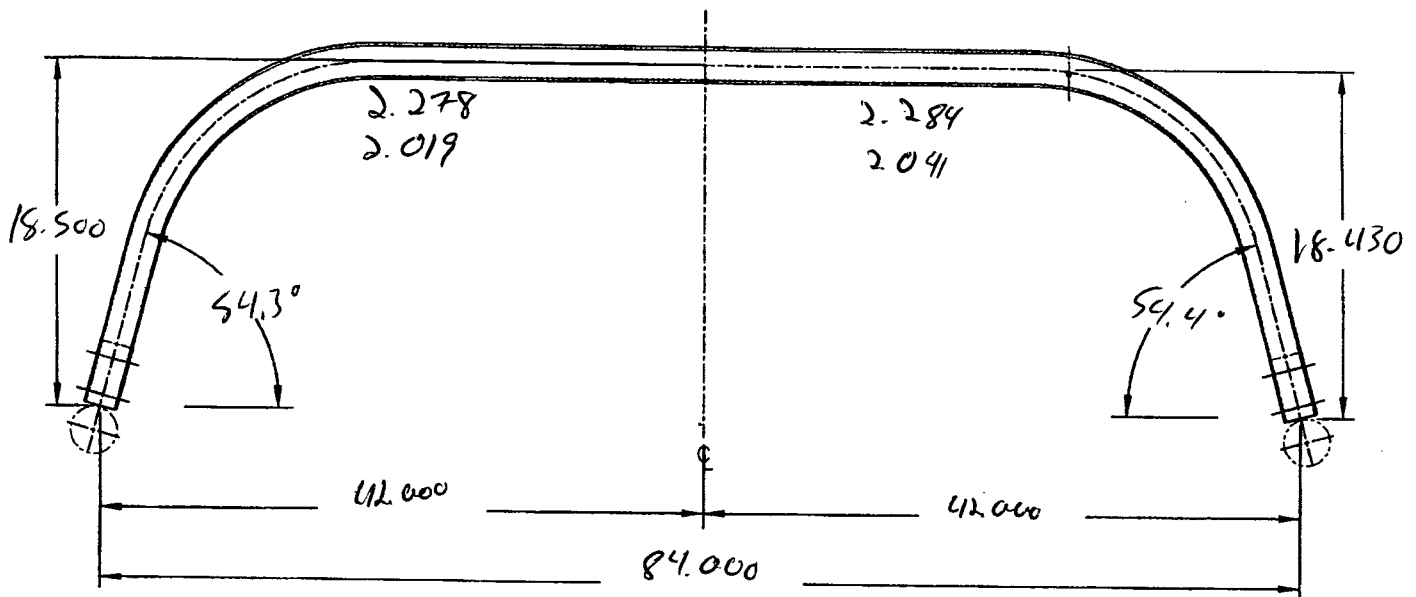
19

m131026

19

DART AEROSPACE LTD		Work Order: 138487
Description: Crosstube Mid Aft (206L)		Part Number: D206-667-207
Inspection Dwg: D206-667-247	Rev: A	Page 1 of 1

Required Dimension	Min	Max
Height	18.34	18.60
1/2 Span	41.79	42.05
Angle	54°	56°
Total Span	83.59	84.09
Bending Passes	10	--
Crushing	--	6%



	Side A	Side B
Bending Passes	11	10
Crushing	6.0%	5.6%
Comments		

QC15 Inspection	DAS
Date	49 15/12/14
	9-89

Rev	Date	Change	Revised by	Approved
A	12.02.15	New Issue	KJ	
B	12.04.16	Added bending, crushing dimensions	KJ	

Item	Qty -247	Part Number	Description
1	X	D206-667-247	CROSSTUBE ASSEMBLY (206L MID AFT)
2	1	D6004-115	CROSSTUBE
3	2	D2873-043	NUT PLATE
4	2	D2873-045	NUT PLATE
5	2	D2892-1	SUPPORT
6	4	D3595-063-450	RUBBER CUSHION
7	4	MS21920-22	CLAMP
8	14	MS20601AD4W10	RIVET (OR NAS9302B-4-10)
9	A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299- 947-100, TYPE II, CLASS 2 ADHESIVE)

GENERAL NOTES:

- 1) MATERIAL: MANUFACTURED FROM D6004-115
FINISHED LENGTH = 99.76±0.020
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART QSI 005 4.2
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: SCRIBE DART PART NUMBER "D206-667-247" AND BATCH NUMBER ON INSIDE OF CUFF PER DART QSI 044 6.4 (VIBRATING STYLUS).
- 7) WEIGHT: 21.1 lbs (-607 = 17.7 lbs)
- 8) PART IS SYMMETRIC ABOUT CENTERLINE.
- 9) RUN CUTTER OFF PART WHERE INDICATED. BLEND OUT EDGE LONGITUDINALLY. TRANSITION SHOULD BE SMOOTH.
- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 10 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 12) INSTALL D2892-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 13) INSTALL MS21920-22 CLAMPS WITH D3595-063-450 RUBBER CUSHIONS TO SECURE THE D2892-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMP MECHANISMS ARE LOCATED ON CROSSTUBE SUPPORTS.
- 14) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS ARE SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

STOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
REVISION NOTICE
WORK ORDER
NO. 138487 MLC
1570-28

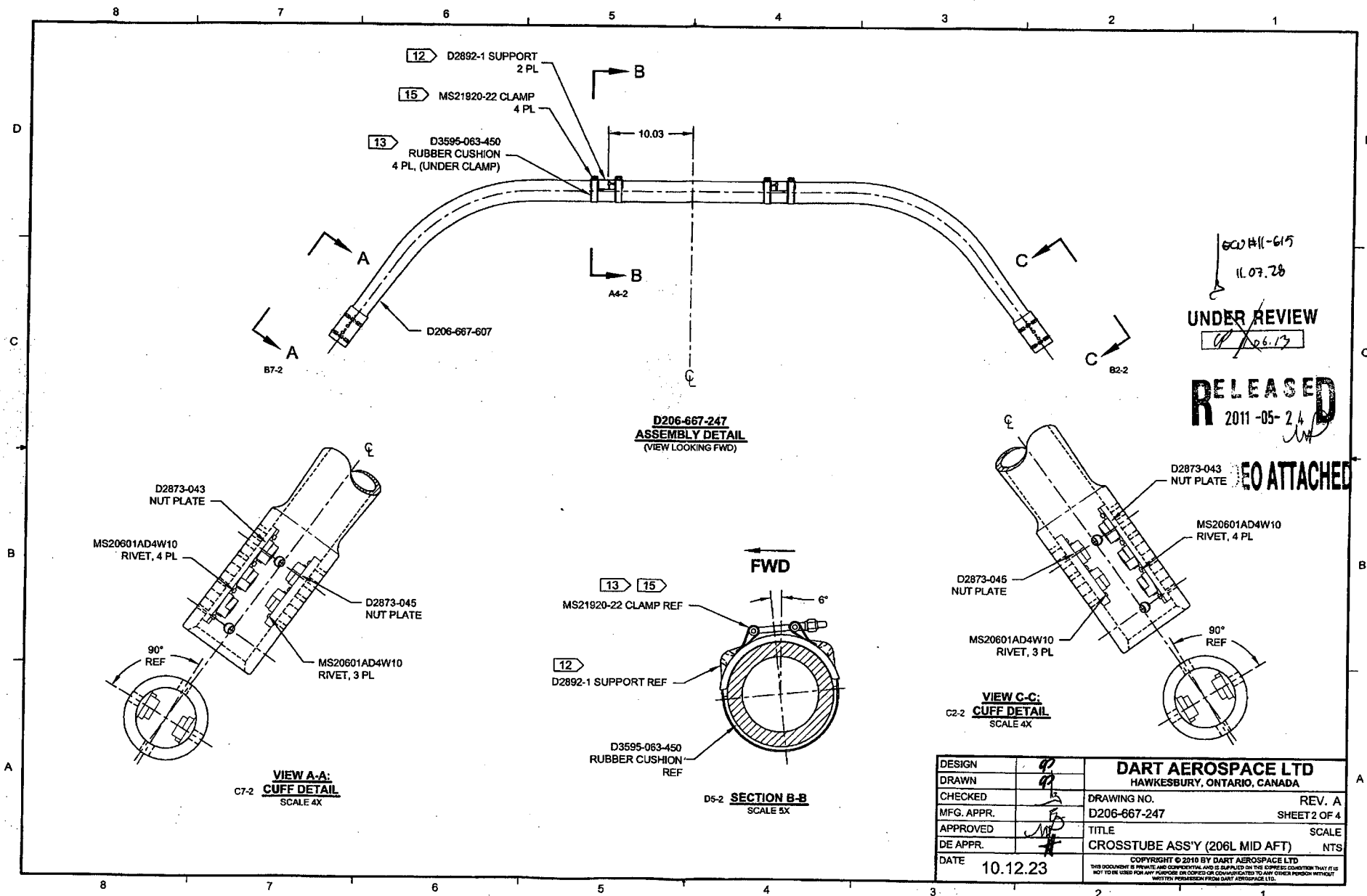
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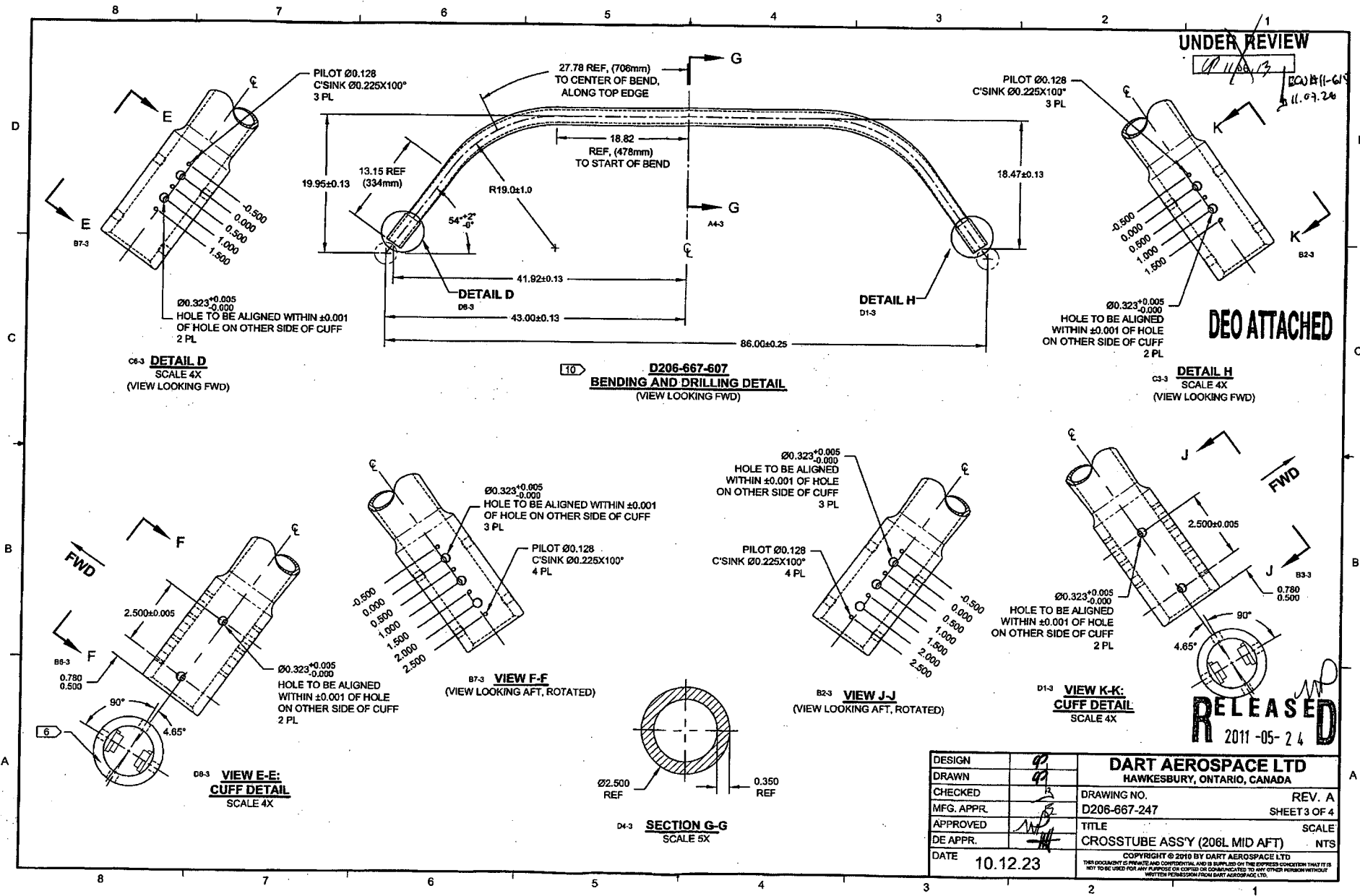
ECO #11-615
11.07.28

UNDER REVIEW

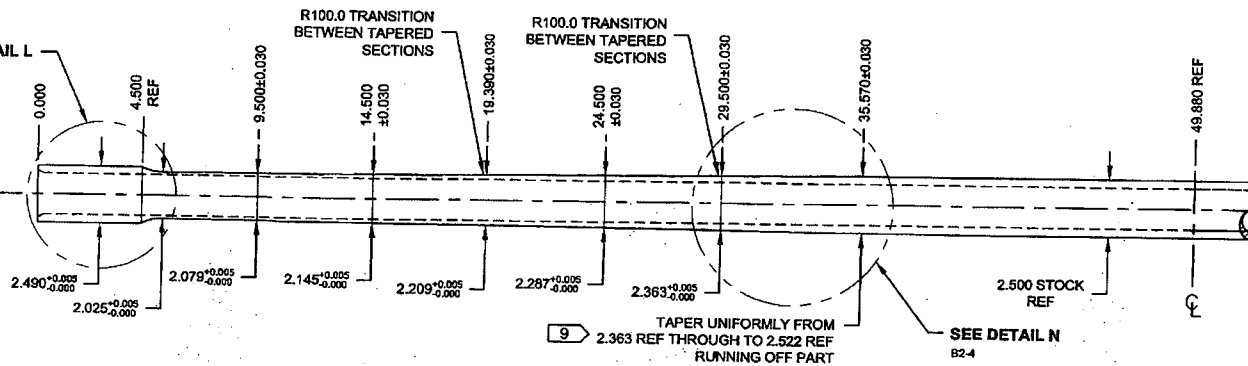
RELEASED
2011-05-24

REV	NEW ISSUE	CP	10.12.23
DESIGN		BY	DATE
DRAWN		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		D206-667-247	SHEET 1 OF 4
APPROVED		TITLE	SCALE
DE APPR.		CROSSTUBE ASS'Y (206L MID AFT)	NTS
DATE	10.12.23	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	

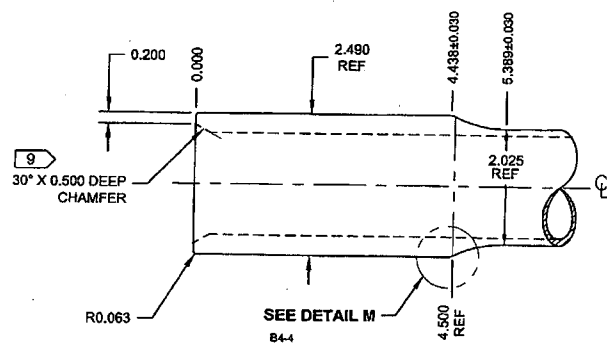




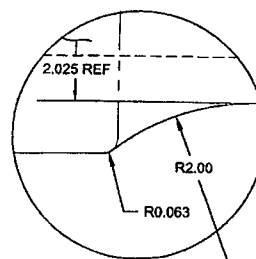
SEE DETAIL L
B7-4



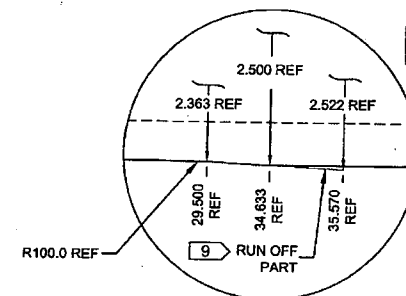
TURNING DETAIL



DETAIL L: CROSSTUBE CUFF
SCALE 2.5X



DETAIL M:
CUFF TRANSITION
NOT TO SCALE



DETAIL N:
TAPER RUN-OFF
NOT TO SCALE

11.07.26

UNDER REVIEW

DEO ATTACHED

RELEASED
2011-05-26

DESIGN		DART AEROSPACE LTD
DRAWN		HAWKESBURY, ONTARIO, CANADA
CHECKED		DRAWING NO. REV. A
MFG. APPR.		D206-667-247 SHEET 4 OF 4
APPROVED		TITLE SCALE
DE APPR.		CROSSTUBE ASS'Y (206L MID AFT) NTS
DATE	10.12.23	COPYRIGHT © 2010 BY DART AEROSPACE LTD
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DRAWING NO. D206-667-247	TITLE CROSSTUBE ASS'Y (206L MID AFT)	REV. A	DART AEROSPACE LTD ENGINEERING ORDER		D.E.O. NO. D206-667-247-A-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>qp</i>	CHECKED <i>ASS</i>	MFG. APPR. <i>KS</i>	APPROVED <i>JMP</i>		DE APPR. <i>#</i>		
DATE 11.07.15	DATE 11.07.20	DATE 11.07.21	DATE 11/07/21		DATE 11.07.21		

PURPOSE:

REPLACE MAGNOBOND WITH PROSEAL.

CHANGE:

IS:

Item	Qty -247	Part Number	Description
9	A/R	PROSEAL 890 B-2	SEALANT, AMS-S-8802 CLASS B-2

WAS:

9	A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299-947-100, TYPE II, CLASS 2 ADHESIVE)
---	-----	----------------	---

NOTE 12 & 15, SHEET 1 IS AMENDED AS FOLLOWS:

IS:

- 12) TO INSTALL D2892-1 SUPPORT: ABRASE MATING SURFACE OF SUPPORT AND CROSSTUBE WITH 180-GRIT SANDPAPER AND REMOVE RESIDUE WITH MEK (OR EQUIVALENT). APPLY A 0.04" TO 0.07" THICK LAYER OF PROSEAL 890 CLASS B-2 (OR AMS-S-8802 CLASS B-2) SEALANT TO MATING SURFACE OF SUPPORT.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING. **PRIOR TO PACKAGING, RE-CHECK TORQUE ON CLAMPS AFTER PROSEAL 890 SEALANT HAS CURED FOR 72 HOURS.**

WAS:

- 12) INSTALL D2892-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

RELEASED
2011-07-28
JMP

D206-667-247

Tangent lines

Center line

15" from CUFF

19" from Center line

2-Set-up

2.5" Rollers WITH 1.6" Spacers

Buggy A - 3.125"

All programs run with long end of tube on **LARGE TABLE**

3-BENDING:

Step 1: **Y 3290 W 1580**

Run program 206247 1-2-3-4 from 15" line down taper, buggy A on Cuff.
then CHECK

Step 2: **Y 3340 W 3440**

run program 206247 10 (check), 11 - 11a - b - c - d check , from 15" line

drill table setup: red towers #4, bottom support towers "loose"

14/03/12.. Bent tubes with programs, (1-4 CHECK, 10 CHECK, 11-11d
CHECK, 11e-11h CHECK

11i, 11j etc.. checking between each!)

1
2
3
4
10
11
11d
11e
11f
11g
11h
11i
11j

1
2
3
4
10
11
11d
11e
11f
11g
11h
11i
11j



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO30754**

Purchase Order Date 12/17/2015

PO Print Date 12/17/2015

Page Number 5 of 6

Order From :
SKYSERVICE
6120 MIDFIELD ROAD
MISSISSAUGA, ONTARIO L5P 1B1
CANADA

VC-SKY001

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name
Vendor Phone 905-678-5636

Ship To Contact
Ship To Phone
Ship Via: Delivered
Ship Acct:

Buyer Chantal Lavoie
Customer POID
Customer Tax # 10127-2607
Terms Net 30
Currency CAD
FOB FCA - (Free Carrier)

11	138485	D206-667-207BL CROSSTUBE	12/18/2015	1.00	\$97.50	\$97.50
			Yes 12/18/2015			

LIQUID PENETRANT INSPECTION AS PER QSI 038 OR
LPI AS PER ASTM 1417 LEVEL 2

Line Total: \$97.50

12	138484	D206-667-207BL CROSSTUBE	12/18/2015	1.00	\$97.50	\$97.50
			Yes 12/18/2015			

LIQUID PENETRANT INSPECTION AS PER QSI 038 OR
LPI AS PER ASTM 1417 LEVEL 2

Line Total: \$97.50

13	138487	D206-667-207BL CROSSTUBE	12/18/2015	1.00	\$97.50	\$97.50
			Yes 12/18/2015			

LIQUID PENETRANT INSPECTION AS PER QSI 038 OR
LPI AS PER ASTM 1417 LEVEL 2

Note:

12/17/2015

1.00
\$97.50
\$97.50
SPS-12-17



skyservice Work Order Traveler

Sky Service F.B.O. Inc.

DOT APP 53-89 / EASA 145.7142 / BDA AMO 385

WO #: MWO26773	Customer: Dart Aerospace Ltd.	Dept: NDT YUL	Reference: 30754
Descr:	PN:	S/N:	Qty: 1
Make:	Model:	Reg:	A/C S/N:
TSN:	CSN:	TSO:	
Task: UNSCHEDULED			Sequence: 1

Work Required:

CARRY OUT NDT INSPECTION (LIQUID PENETRANT) ON 13 CROSSTUBES & 2 MISC PARTS.

ITEM ID: D212-725-1-007 COLLECTIVE BELL CRANK (QTY 2)

1 - WORK ORDER ID#: 139687

ITEM ID: D206-667-207BL AFT CROSSTUBE - MID HEIGHT 206L / L1/L3/L4 BLUE

2 - WORK ORDER ID#: 138487

3 - WORK ORDER ID#: 138484

4 - WORK ORDER ID#: 138485

5 - WORK ORDER ID#: 138486

SP 15-12-17

ITEM ID: D206-667-107BL FWD CROSSTUBE MID HEIGHT 206L / L1/L3/L4 BLUE

6 - WORK ORDER ID#: 138473

7 - WORK ORDER ID#: 138474

8 - WORK ORDER ID#: 138472

9 - WORK ORDER ID#: 138475

ITEM ID: D407-667-105 FWD CROSSTUBE HIGH 407

10 - WORK ORDER ID#: 134082

11 - WORK ORDER ID#: 139764

12 - WORK ORDER ID#: 135103

13 - WORK ORDER ID#: 134083

14 - WORK ORDER ID#: 139766

Action Taken:		Date:	Initial/Stamp:			
LIQUID PENETRANT INSPECTION CARRIED OUT ON ITEMS LISTED ABOVE (ITEMS 1-3) AS PER ASTM1417M-13		DEC 17 2015	DOT-APP 61 53-89			
NO CRACK FOUND						
Pen: ZL-27A MWO5678 DEV: SKD-S2 MPO11715 CLEANER: SKC-S MPO13923						
Description	Location	P/N	Qty	Batch	S/N Off	S/N On

I certified that the maintenance described above has been performed in accordance with the applicable standard of airworthiness.

Signature:	ACA/SCA Stamp	Date:
Name: ANTONINO MARCHETTA	DOT-APP 61 53-89	DEC 17 2015